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MIDMARK®

# Installation and Operation Manual

## Model 416 Podiatry Examination Chair

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## General Operation and Care of Equipment

This manual covers the instructions for the installation, operation, and normal care of the 416 Podiatry Examination Chair.

For the purpose of this manual, the word TABLE is synonymous with the word CHAIR.

This table has been designed to help reduce effort and work fatigue involved in the examination and treatment of an ever-increasing number of patients during the doctor's normal working day.

The angle of the table top, (TILT), and the upper section of the table, (BACK), are adjusted by the use of an electromechanical power unit. The seat height of this table is fixed at 22-1/2". The angle of the table top, (TILT), may be varied from the horizontal to 30 degrees. The upper portion of the table, (BACK), can be adjusted from horizontal to a full chair sitting position, and the foot section may be manually extended - 8-7/8". The combination of these three motions provide a table which can not only be tailored to meet the individual doctor's requirements, but will meet the requirements of most examinations and treatments being performed in the doctor's office today.

The FOOT CONTROL, accessory p/n 9A97002 (optional) and the HAND CONTROL, accessory p/n 9A93001, (standard) both can be used to control manual table adjustments and to enter and use preset programmed positions. They also contain an "auto return" feature which automatically sends the table to a preset, home, sitting position with the single touch of a button.

## LIMITED WARRANTY

The Company shall repair or replace any products or parts thereof, which prove to be defective in workmanship and/or material. Except as it may otherwise specifically agree in writing the Company shall not be liable for transportation, labor or other charges for adjustments, repairs, replacement parts, installation or other work which may be done upon or in connection with such products by the Company's authorized Dealers or others.

Any part or parts of a product to be repaired or replaced under this limited warranty must be returned to the factory f.o.b.

This warranty does not apply to any part or product which examination discloses has been misused, abused, altered or tampered with in any way. This warranty shall be in effect for a period of twelve months from the date of shipment to the customer.

In no event shall the Company be liable for consequential or special damages in the event of warranty repair or replacement of its products.

THE FOREGOING IS IN LIEU OF ALL WARRANTIES EXPRESSED OR IMPLIED, AND ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF THE COMPANY.

## Important Instructions

**Safety First:** The primary concern of the Midmark Corporation is that this equipment be operated and maintained with the safety of the patient and doctor in mind. To assure safer and more reliable operation:

1. Read this manual before installing or operating your equipment.
2. It is the responsibility of the purchaser to assure that appropriate personnel are informed on the contents of this manual.
3. Be sure that you understand the instructions contained in this manual before attempting to install or operate this equipment.
4. This manual should remain permanently affixed to the equipment.

## Warnings

Throughout this manual are Notes, Cautions, and Danger warnings that call attention to particular procedures. The items are used as follows:

**NOTE**
A note is used to amplify an operating procedure, practice, or condition.

**CAUTION**
A CAUTION is used for an operating procedure, practice, or condition which, if not correctly followed, could result in equipment damage.

**DANGER**
**A DANGER is used for an operating procedure, practice, or condition which, if not correctly followed, could result in personal injury.**

For your personal safety and that of your patients, all DANGER warnings are repeated here. Become thoroughly familiar with them and observe them at all times.

1. Do not lift at point “B”, fig. 1. This is not a supported area. Lifting at this point could cause personal injury or damage to the table.
2. Use 115 volt - 60 hertz alternating current only. Failure to do so could result in personal injury or equipment damage.
3. Do not use this table in an explosive or oxygen-enriched atmosphere. Using the table in these situations could cause personal injury or equipment damage.
4. All exposed metal parts of the table are electrically grounded. When performing a cauterization or similar treatment, the patient must be insulated from the metal portions of the table by a nonconductive material. Failure to do so could result in electrical shock or burns to the patient.
5. If the table malfunctions, immediately remove your foot or hand from the control switch, unplug the power cord from the wall receptacle, and assist the patient from the chair.
6. Keep your arms and legs and your patent’s arms and legs clear of all moving parts when changing table positions. Failure to do so could result in personal injury.
7. Keep all foreign objects away from the foot switch or hand control so that the switches are not accidently activated. Failure to do so could result in personal injury or damage to the table.
8. Be sure all persons and equipment are clear of the table before activating the auto return. Failure to do so could result in personal injury or damage to the table.
9. Be sure all persons and equipment are clear of the table before activating any programmed positions. Failure to do so could result in personal injury or equipment damage.
10. Failure to return the foot section or debris tray to its storage position before lowering or auto returning the chair tilt could result in personal injury or equipment damage.
11. Failure to perform a periodic inspection of your equipment could result in personal injury or equipment damage.

## Unpacking and Installation

**UNPACKING:**
To avoid damaging the table when unpacking, do not use a knife or other sharp object to open the carton. To begin, Break the bands holding down the carton to the base. Lift carton off the base and remove the poly bag by pulling the staples loose around the skid. Remove the 4 bolts holding the table to the skid at point "A" and lift table up out of the skid by points "C", not at "B".

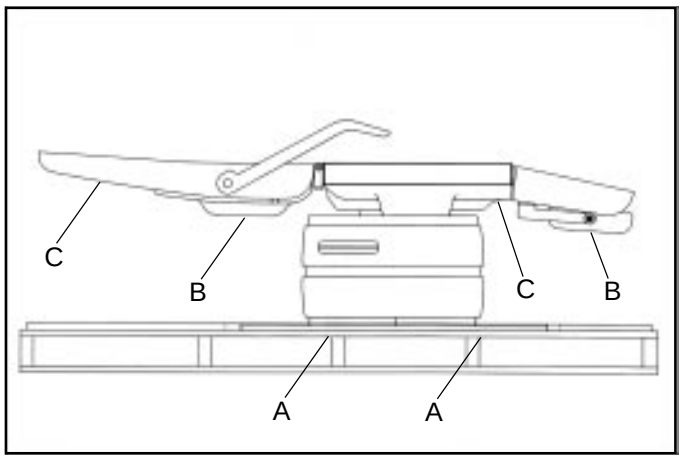


**FIGURE 1**

**DANGER**
Do not lift at point "B", fig. 1. This is not a supported area. Lifting at this point could cause personal injury or damage to the table.

**DANGER**
Use 115 volt - 60 hertz alternating current only. Failure to do so could result in personal injury or equipment damage.

**DANGER**
Do not use this table in an explosive or oxygen-enriched atmosphere.
Using the table in these situations could cause personal injury or equipment damage.

**DANGER**
All exposed metal parts of the table are electrically grounded. When performing a cauterization or similar treatment, the patient must be insulated from the metal portions of the table by a nonconductive material. Failure to do so could result in electrical shock or burns to the patient.

**ELECTRICAL**
The electrical rating of the Model 416 is 115 V.A.C., 60 Hertz, 6 Amperes. The three pronged grounding plug on the table power cord must be inserted into a matching three-pronged, grounding, non-isolated correctly-polarized 120-volt receptacle.

The single table power cord provides power to all of the table's electromechanical actuators and to both of the duplex receptacles located on lower sides of the seat (Item A, Fig 2).

**NOTE**
This equipment is not designed for continuous operation. If the unit is operated continually, a thermal overload switch will shut off the actuator motor. If normal Operation ceases, immediately remove your foot or hand from the control switch. The overload switch will automatically reset after the motor cools (minimum 15 minutes).

The 416 table actuators are fused to protect the operator as well as the table. Should the unit fail to start after a cool down period, contact an authorized service center to investigate the cause of the failure.

## Operation of Table Power Features

For optimal performance, allow the table to reach room temperature before using.

Plug table power cord into proper receptacle as described above under **ELECTRICAL**.

**NOTE**
DISABLE SWITCH: A disable switch which interrupts power to all table actuator motors is located beneath the duplex receptacle on the left-hand side of the table (B, Fig. 2).

When the switch is positioned toward the foot end of the table, all controls are disabled. Changing the position of the switch toward the head end of the table allows power to be supplied for table positioning.

**CAUTION**
Always disable the controls to the table when it is required to remain in a fixed position during cauterization or when the table is left unattended.

Insert hand control cord into the receptacle of both the table, (C, Fig. 2), and into the receptacle in the bottom of the hand control, (A, Fig. 3).

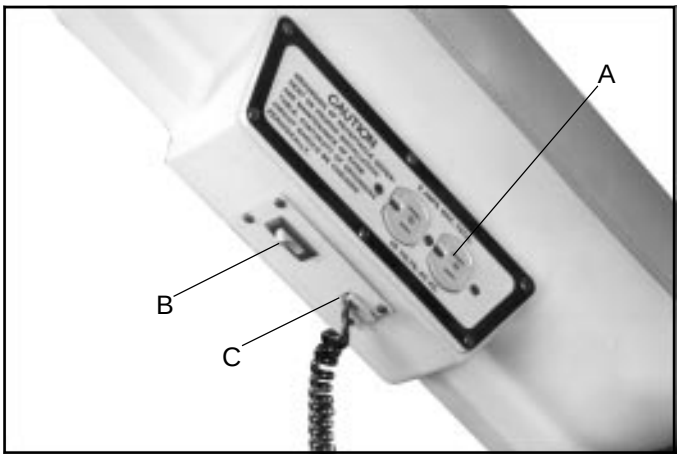


**FIGURE 2**

To insert plug, align plug tab with notch in the receptacles. Push inward until tab clicks into the locked position. To remove plug, depress tab while pulling on the plug.

**NOTE**
The table may be operated with the hand control connected into the foot control receptacle if so desired, or vice versa.

Turn the disable switch, (B, Fig. 2), towards the head end to power up the table. Then press AUTO RETURN. The table's actuator motors will run and shut down automatically. You may now begin to position the table.

**DANGER**
**If the table malfunctions, immediately remove your foot or hands from the control switch, unplug the power cord from the wall receptacle, and assist the patient from the chair.**

**DANGER**
**Keep your arms and legs and your patent's arms and legs clear of all moving parts when changing table position. Failure to do so could result in personal injury.**

**DANGER**
**Keep all foreign objects away from the foot switch or hand control so that the switches are not accidentally activated. Failure to do so could result in personal injury or damage to the table.**

## Patient Positioning (Manual)

The table is now ready for operation. If the table does not respond to attempts to move the table using the hand control or foot control, refer to reinitialization steps on page 8.

Your Model 416 can actuate 2 power motions, BACK and TILT.

**ADJUSTMENT OF TABLE BACK SECTION**

To raise the upper portion of the table from the horizontal toward the chair position, depress the button marked BACK UP and hold down until the desired position is obtained or the chair position is achieved.

To lower the upper portion of the table from the chair position, depress the button marked BACK DOWN and hold down until the desired position is obtained or the most horizontal position is achieved.

**NOTE**

DO NOT continue to hold the control switch down after the table reaches either of the extreme positions. Extended operation of the motor at either of these positions will overheat the actuator motor.

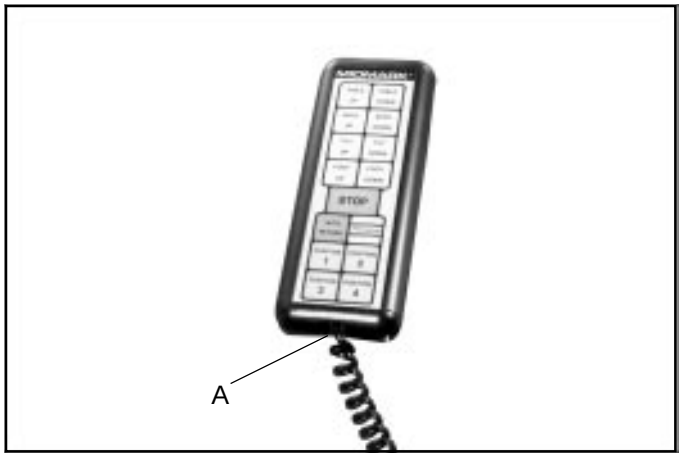


**FIGURE 3**

**ADJUSTMENT OF THE TABLE TOP ANGLE**

To tilt the table top, depress the button marked TILT UP and hold down until the desired degree of tilt is obtained or until the table reaches its maximum amount of movement.

To bring the table top angle down toward horizontal, depress the button marked TILT DOWN and hold down until the desired position is obtained or the horizontal position is achieved.

DO NOT continue to hold the control switch down after the table reaches either of the extreme positions. Extended operation of the motor at either of these positions will overheat the actuator motor.

**DANGER**

**Be sure all persons and equipment are clear of the table before activating the auto return. Failure to do so could result in personal injury or damage to the table.**

**AUTO RETURN**

The auto return will lower any amount of tilt and raise the back, moving the table motions simultaneously until the table reaches a sitting patient entry or exit position. To activate the auto return, depress the green button marked AUTO RETURN just once.

If for any reason the AUTO RETURN must be stopped, press the red button marked STOP or any other button in an emergency.

## Patient Positioning (Programmable)

The table is now ready for operation. If the table does not respond to attempts to move the table using the hand control or foot control, refer to reinitialization steps on page 8.

The model 416 table can be programmed to keep up to four doctor specified positions in its computer memory. Once the position is placed in memory, only one switch or button must be activated to simultaneously operate both power motions of the table. This allows quick positioning for frequently performed procedures.

**PROGRAMMING THE TABLE**
To store a table position in the computer memory, the following steps must be taken:

**DANGER**
**Be sure all persons and equipment are clear of the table before activating any programmed positions. Failure to do so could result in personal injury or equipment damage.**

**NOTE**
For optimal results, always make certain the table is in its "home," auto returned, position before beginning to enter any programmed positions.

1. Using either the foot or hand control, (Fig. 3 & 4), move the table to the desired position using one function at a time and without starting and stopping each function more than once.

2. Press the yellow switch or button marked PROGRAM once, holding down for 2 or 3 seconds.

3. Next press one of the blue switches or buttons with the number you choose to assign to this position.

4. Press the green switch or button marked AUTO RETURN, allow the table to run to the preset home position.

5. Press the blue, numbered, program switch or button you have just entered and the table will run all actuators simultaneously until the desired position is reached.

**FIGURE 4**

**NOTE**
If for any reason the PROGRAMMED POSITIONING must be stopped, press the red switch or button marked STOP or any other switches or buttons in an emergency.

Should the doctor wish to change a PROGRAMMED POSITION, simply go to the steps listed above. The old position will be replaced by the new.

In the event of a power outage, your model 416 will maintain its memory up to four days after the loss of power.

**REINITIALIZATION**
Depress the PROGRAM, POSITION 1, and POSITION 2 switches simultaneously for a minimum of five seconds. Release these switches and depress the AUTO RETURN switch for seven seconds or until the table begins to move. Release the AUTO RETURN switch. The motors will continue to run for approximately eighteen seconds. The table is now ready for normal operation. If table malfunction persists, then contact your dealer or Midmark's service department at 1-800-MIDMARK.

**FOOT SECTION EXTENSION**
To accommodate taller patents your table's length can be extended by holding knob, (A, Fig. 5), down while pulling outward on the foot assembly. Release knob and push the foot section assembly inward until it rests against the seat.

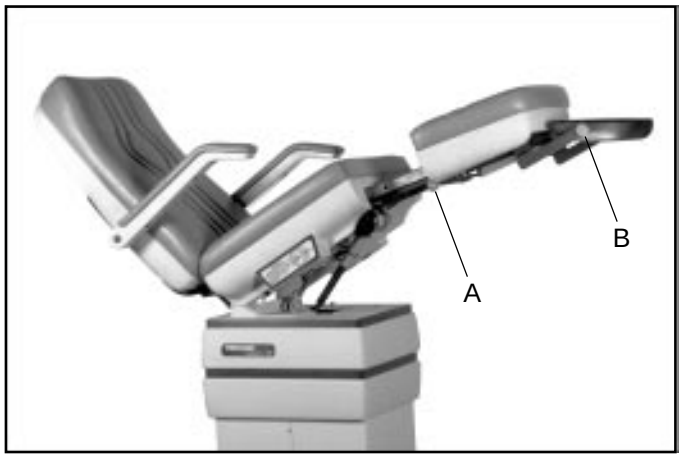


**FIGURE 5**

**DEBRIS TRAY**
To expose the debris tray for use, simply pull outward. By loosening the side knobs, (B, Fig. 5), the tray can be positioned parallel to the floor and locked (knobs tightened). To clean the tray, loosen the knobs and turn it over or remove it entirely from the chair by lifting the tray out of the notches in the support arms.

**DANGER**
**Failure to return the foot section or debris tray to its stored position before lowering or auto returning the table could result in personal injury or equipment damage.**

**FIGURE 6**

## Care of Table

**CARE OF UPHOLSTERY**
The upholstery material used to cover the top of the table is resistant to most medicinal-type stains, but may be damaged by solvents and dyes. Regular care should be maintained by daily wiping with a damp cloth or sponge and a periodic cleaning with a mild soap and water solution.

Any fluid spilled on the upholstery should be removed as quickly as possible.

In the case of stain, attempt to remove it with soap and water.

**CARE OF PAINTED METAL SURFACES**
All painted metal surfaces should be wiped clean with a clean, soft cloth weekly, and a periodic application of paste wax to smooth paints will preserve the finish luster.

**CARE OF PLASTIC COMPONENTS**
All the plastic table parts should be cleaned with a clean damp cloth weekly. Any soiled areas may be cleaned with soap and water or other household cleaners.

**CARE OF MOVING PARTS**
All moving parts, such as the foot section slides, back hinges, and debris tray assembly should be lubricated occasionally with a light machine oil to help insure quiet, dependable operation.

## Maintenance

Little routine maintenance is required other than a periodic inspection of the electrical cords to make sure they are free of cuts or damage and clear of moving parts. Due to the mechanical, electrical nature of this equipment, periodic inspections at six (6) month intervals by your dealer are recommended.

**DANGER**
**Failure to perform a periodic inspection of your equipment could result in personal injury or equipment damage.**

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## NOTES

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